Final project Report

The aim of this thesis was to investigate magnetic levitation and to design aworking system capable of levitating an object from below. The system should beable to levitate an object from below, clear of an array of electromagnets withoutany form of support. There shouldn’t be any object, structure or device assistingin levitation, on the same level of elevation as the levitating object. The controland circuit complexities should be investigated and recommendations forimproving the designed system should be made. Feedback: used in conjunction with electromagnets to dynamicallyadjust magnetic flux in order to maintain levitation

the operation of this system will be to detect theposition of the levitating magnet and drive the electromagnet accordingly. Ifthe magnet falls too close, the current in the electromagnet must be increasedto repel the levitating magnet more strongly. If it rises too high, the current inthe electromagnet must be reduced

Levitating magnet

IR sensor

Electromagnet

Supporting stand

IC’s used

TIP 122